MEETING LOG DIRECTORATE FOR ENGINEERING SCIENCES

SUBJECT: Meeting with representative of the Mid-Vent Division of Lauren International, Inc. to discuss a new vent technology

PLACE: Lauren Manufacturing Company, New Philadelphia. Ohio

MEETING DATE: September 11, 1997

LOG ENTRY SOURCE: Ronald A. Jordan RAJ

ENTRY DATE: September 19, 1997

COMMISSION ATTENDEES:

Ronald A. Jordan, ESEE

NON-COMMISSION ATTENDEES:

Mike Roberts, Mid-Vent Division of Lauren International, Inc.
Marvin R. Davis, Lauren International, Inc.

MEETING SUMMARY:

Staff was invited by Mike Roberts of Mid-Vent to visit Lauren Manufacturing Company to witness a demonstration of a new vent technology. Mr. Roberts believes his new vent design would address the technological challenges posed by staff's proposal to the ANSI Z21.47 ANSI Z21/CGA Joint Central Furnace Subcommittee that the standard require a furnace to shutoff if the vent becomes disconnected.

Mr. Roberts' demonstration consisted of a working gas furnace set up with his new vent design operating under certain disconnected vent scenarios such as pin-hole corrosion through the vent pipe with the presence of condensate, complete separation of the vent pipe, and gaps in the vent pipe. In each of the simulated vent failure scenarios, the furnace shutoff. Mr. Roberts' new vent design works on the concept that if the vent acts as a capacitor, the capacitance across vent would be measurable, and the vent pipe acting as a capacitor could be placed in series with the furnace's control circuitry. Each of the above failure scenarios cause a change in the vent pipes capacitance, thus breaking the series circuit and shutting down the furnace.

A version of this vent design was also demonstrated at the ANSI Z21.47 ANSI Z21/CGA Joint Central Furnace Subcommittee meeting in Cleveland on September 9, 1997.

cc:
Office of the Secretary
Colin Church
ESEE Chronological File